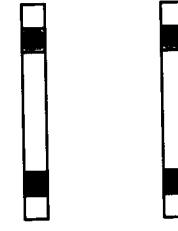
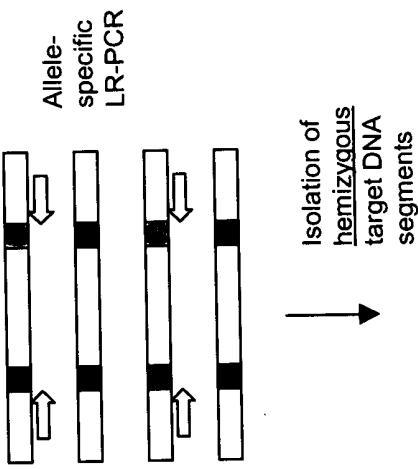


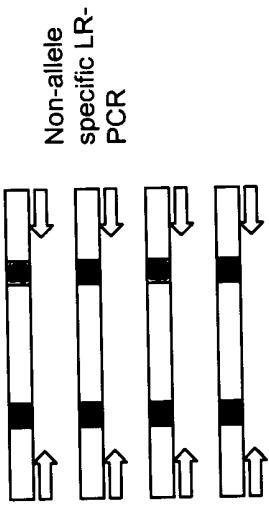
Michalatos-Beloin

Long-range PCR
amplification of
heterozygous
genomic DNA

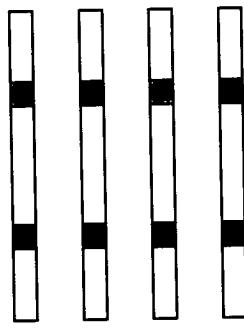


Immediate haplotype
detection, but of only
ONE allele.

McDonald-Evans

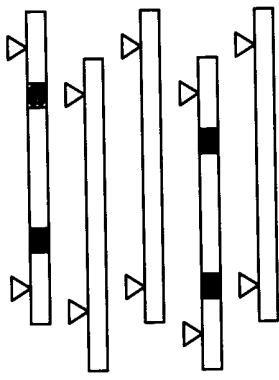


Isolation of
heterozygous
target DNA
segments

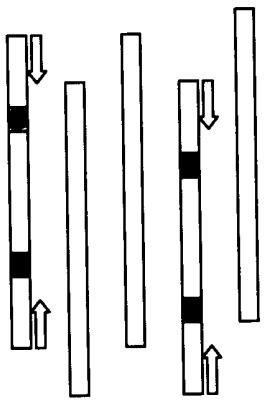


Subsequent analysis via
circularization, then
haplotype detection
of BOTH alleles

Restriction digestion of genomic DNA; no isolation of target sequence

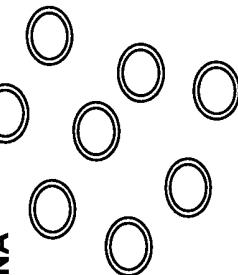


Isolation of target sequence from genomic DNA by LR-PCR amplification



Circularization of the entire digested genomic DNA

= entire genome
(target gene may be digested and thus not intact)



Circularization of target sequence only

= target sequence only

Haplotype analysis of only circularized target sequence. A variety of molecular methods including, but not limited to, allele-specific PCR can be used for haplotype identification.

Isolation of hemizygous target sequence from circularized total genomic DNA by allele-specific PCR amplification; haplotype identification.